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Amendment
Attorney Docket No. S63.2B-11233-US01

Amendments To The Drawings:

The attached drawing sheet includes changes to Figure 1. Specifically, reference numerals 140 and 150 have been added.

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Remarks

This Amendment is in response to the Office Action dated **August 24, 2006**.

Claims 1-20 are pending in this application. The Office Action rejected claims 1-3, 10, 14, 15 and 17-19 under 35 USC § 102 over Berra (US 2004/0215319); rejected claims 4-9, 11-13, 16 and 20 under 35 USC § 103 over Berra in view of Yip (US 6846323); objected to the drawings; and objected to claim 9 for an informality.

By this Amendment, claims 1, 4, 7, 9, 14, 17 and 18 are amended. Support for the amendments can be found at least in Figure 1 and at page 7, lines 28-33. Applicant reserves the right to prosecute all cancelled subject matter in a subsequent patent application claiming priority to the immediate application. The specification and Figure 1 are also amended in accordance with the claim amendments. No new matter has been added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Claim Objections

The Office Action objects to claim 9 for an informality. Claim 9 is amended in accordance with the Office Action's suggestion to overcome the objection. Accordingly, Applicant requests withdrawal of the objection.

Specification Amendment

The specification is amended to add paragraphs that explicitly recite connected turns 140, free turns 150 and connecting elements 118 that are nonparallel to a central longitudinal axis of the stent, as included in the amended claims.

The additional paragraphs are fully supported at least by Figure 1 of the application as originally filed. A person of ordinary skill in the art would have understood the content of the additional paragraphs to be disclosed in Figure 1. No new matter has been added.

Drawing Amendments

The attached drawing sheet includes changes to Figure 1, which is amended to add reference numerals 140 and 150 in accordance with the specification amendments.

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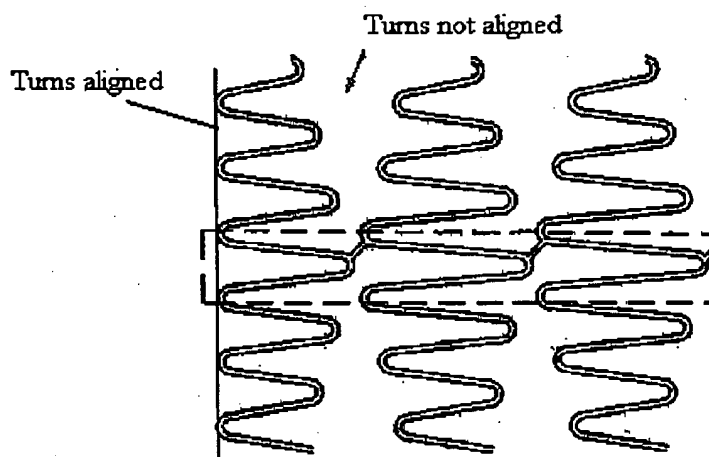
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Drawing Objection

The Office Action objects to the drawings. This objection is traversed.

Applicant believes that the drawings show all necessary structural features and that the claimed invention can be fully understood by a person of ordinary skill in the art.

Applicant has provided a marked excerpt from Figure 4, which illustrates features discussed in the objection. Specifically, three bands are shown. One band clearly comprises a different shape than the other bands, and therefore comprises a segment of different geometry (claim 4). The band further includes aligned turns at the left end and unaligned turns at the right end (claims 5-7).



Marked excerpt from
Figure 4

37 CFR § 1.81 requires a drawing “where necessary for the understanding of the subject matter sought to be patented.” With respect to the “thinner strut” limitation of claim 20, Applicant asserts that any person of ordinary skill in the art would understand the meaning of the term “thinner strut.” Therefore, Applicant believes that an illustration is not necessary for the understanding of claim 20.

Accordingly, Applicant requests withdrawal of the objection to the drawings. In the event that the Examiner maintains the objection, Applicant requests that the Examiner contact Applicant’s undersigned representative to discuss a drawing amendment prior to issuing a Final Office Action.

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Claim Rejections – 35 USC § 102

The Office Action rejected claims 1-3, 10, 14, 15 and 17-19 under 35 USC § 102 over Berra. The rejections are discussed below with respect to the independent claims.

Berra discloses a stent-graft made from a plurality of spaced apart stent springs coupled to a cylindrically shaped stent-graft material. See paragraph 0023. The adjacent stent springs 202 “are spaced apart and coupled, e.g., sewn, to cylindrical shape stent-graft material 203...with sutures (not shown).” See paragraph 0029 (emphasis added) and FIG. 5A, shown below.

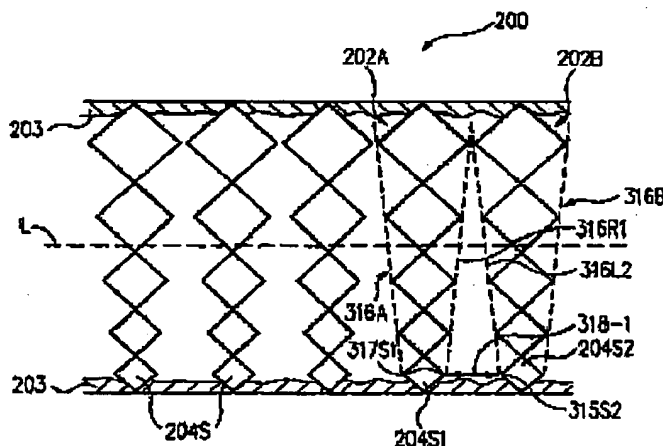


FIG. 5A

Thus, the Berra device includes a plurality of separate and independent stent springs 202. Each stent spring 202 is connected only to the graft material and is not directly connected to any other stent spring 202.

Independent Claim 1

Claim 1 has been amended and requires a “connecting element” that spans from “a turn of the first serpentine circumferential band” to “a turn of the second serpentine circumferential band.” Claim 1 further requires that the first serpentine circumferential band comprise at least one “free turn that is oriented to face the second serpentine circumferential band and connected only to struts of the first serpentine circumferential band.”

As discussed above, the various independent stent springs 202 of the Berra device are sewn to the graft material and are not directly connected to one another. Thus, Berra does not

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disclose or suggest a connecting element that spans from a turn of one stent springs 202 to a turn of an adjacent stent spring 202, as would be required to meet the limitations of claim 1.

To the extent that a single stent spring 202 could be characterized as comprising two serpentine bands, all of the turns of the two bands that face one another are connected to one another. Thus, neither band could be characterized as a first band having a free turn that faces the second band, as would be required to meet the limitations of claim 1.

Therefore, Applicant asserts that claim 1 is patentable over Berra under 35 USC § 102. Claims 2-3 and 10 depend from claim 1 and are patentable over Berra for at least the reasons discussed with respect to claim 1. Accordingly, Applicant requests withdrawal of the rejections of claims 1-3 and 10.

Independent Claim 14

Claim 14 has been amended and requires the first portion to be connected to the second portion "by at least one connecting element, the connecting element being nonparallel to a central longitudinal axis of the stent."

As discussed above, Berra does not disclose or suggest a connecting element that spans between adjacent stent springs 202. Thus, Berra does not disclose or suggest such a connecting element being nonparallel to a central longitudinal axis of the stent, as would be required to meet the limitations of claim 14.

Therefore, Applicant asserts that claim 14 is patentable over Berra under 35 USC § 102. Claim 15 depends from claim 14 and is patentable over Berra for at least the reasons discussed with respect to claim 14. Accordingly, Applicant requests withdrawal of the rejections of claims 14 and 15.

Independent Claims 17 and 18

Claims 17 and 18 have been amended and each require the claimed interconnected struts to define "a plurality of serpentine bands including a first serpentine band, a second serpentine band and a third serpentine band, and a plurality of connecting elements." Claims 17 and 18 each also require the interconnected struts to be "formed from a single piece of material."

Support for the amendments directed to a single piece of material can be found at

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least at page 13, lines 26-32 discussing stent manufacturing techniques. A person of ordinary skill in the art would understand a number of these techniques can produce a stent that is formed from a single piece of material, such as laser cutting a tube.

As discussed above, the various independent stent springs 202 of the Berra device are sewn to the graft material and are not directly connected to one another. Berra does not disclose or suggest a single piece of material that comprises three "serpentine bands" and further comprises connecting elements.

Therefore, Applicant asserts that claims 17 and 18 are patentable over Berra under 35 USC § 102. Claim 19 depends from claim 18 and is patentable over Berra for at least the reasons discussed with respect to claim 18. Accordingly, Applicant requests withdrawal of the rejections of claims 17-19.

Claim Rejections – 35 USC § 103

The Office Action rejected claims 4-9, 11-13, 16 and 20 under 35 USC § 103 over Berra in view of Yip. These rejections are traversed.

The Office Action asserts that it would have been obvious to add connecting elements as disclosed by Yip to the Berra device "in order to maintain alignment of the bands." See Office Action page 4.

Applicant asserts that a person of ordinary skill in the art would not have been motivated to modify Berra as proposed in the Office Action. Each Berra stent spring 202 is sewn directly to the graft material, and is held in place by the graft material. See paragraph 0029 and FIG. 5A. Thus, the various stent springs 202 are held in alignment by the graft material itself, and there is no reason to modify the Berra device to add additional rigid structure.

Berra further discloses that, in the prior art, it was necessary to limit the amount of axial bending allowed in a stent-graft as bending, kinking and stent cell overlap can reduce flow through the graft. See paragraphs 0008 and 0009. Berra then teaches the stent-graft formed from individual stent springs 202 that "easily conforms to the curved segment of a tortuous body lumen while maintaining support for the lumen." See paragraph 0011.

A person of ordinary skill in the art would recognize that additional structural stent framework would inhibit flexibility of the Berra stent-graft, and in some instances, could

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even cause bending or kinking of the stent-graft. Therefore, a person of ordinary skill in the art would not be motivated to modify Berra stent-graft according to the stent-specific designs disclosed in Yip.

Applicant further asserts that amendments to the independent claims are believed to render the rejections moot. Accordingly, Applicant requests withdrawal of the rejections under 35 USC § 103.

Conclusion

Based on at least the foregoing amendments and remarks, Applicants respectfully submit this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

VIDAS, ARRETT & STEINKRAUS

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